

# GUANIDINE THIOCYANATE GMP

CAS #: 593-84-0

Formula: C<sub>2</sub>H<sub>6</sub>N<sub>4</sub>S

F.W.: 118.16 g/mol

### GTHI-4221

### BIO PHARMA GRADE

| ANALYSIS             |                 | SPECIFICATIONS                 |
|----------------------|-----------------|--------------------------------|
| Absorbance (1.7M)    | 280 nm          | < = 0.300 a.u.                 |
|                      | 300 nm          | < = 0.050 a.u.                 |
|                      | 340 nm          | < = 0.030 a.u.                 |
| Appearance and Color |                 | White Crystals                 |
| Assay, Dried Basis   |                 | 99.0 - 101.0%                  |
| Enzymes              | DNase           | None Detected                  |
|                      | Protease        | None Detected                  |
|                      | RNase           | None Detected                  |
| Identification, IR   |                 | Conforms to Reference Standard |
| Loss on Drying       |                 | < = 0.5%                       |
| Melting Range        |                 | 115 - 121°C                    |
| pH (5%)              |                 | 5.0 - 7.0                      |
| Sulfated Ash         |                 | < = 0.5%                       |
| Sulfate              |                 | < = 50 ppm                     |
| Trace Metals         | Arsenic (As)    | < = 5 ppm                      |
|                      | Aluminum (Al)   | < = 5 ppm                      |
|                      | Barium (Ba)     | < = 5 ppm                      |
|                      | Bismuth (Bi)    | < = 5 ppm                      |
|                      | Calcium (Ca)    | < = 10 ppm                     |
|                      | Cadmium (Cd)    | < = 5 ppm                      |
|                      | Chromium (Cr)   | < = 5 ppm                      |
|                      | Cobalt (Co)     | < = 5 ppm                      |
|                      | Copper (Cu)     | < = 5 ppm                      |
|                      | Iron (Fe)       | < = 5 ppm                      |
|                      | Potassium (K)   | < = 50 ppm                     |
|                      | Lead (Pb)       | < = 5 ppm                      |
|                      | Lithium (Li)    | < = 5 ppm                      |
|                      | Magnesium (Mg)  | < = 5 ppm                      |
|                      | Manganese (Mn)  | < = 5 ppm                      |
|                      | Molybdenum (Mo) | < = 5 ppm                      |
|                      | Sodium (Na)     | < = 5000 ppm                   |
|                      | Nickel (Ni)     | < = 5 ppm                      |
|                      | Strontium (Sr)  | < = 5 ppm                      |
| Zinc (Zn)            | < = 5 ppm       |                                |

### General Product Overview

This is a high purity, reagent grade product, purified under cGMP conditions. Guanidine Thiocyanate is a chaotropic agent. As one of the strongest protein denaturants, it inactivates nucleases more efficiently than Guanidine Hydrochloride. Guanidine Thiocyanate is preferred for the purification of RNA because it dissociates the RNA into its nucleic acids and protein forms. Higher molarity solutions of Guanidine Thiocyanate irreversibly inactivate RNase. Guanidine Thiocyanate causes proteins to dissolve readily, thus disintegrating cellular structures.

### Industry Application

Suitable for use in biological and biotech chemical process applications from R&D through scale cGMP production.

### Key Product Features

- Appears as a white crystalline product
- Manufactured in accordance with IPEC
- Manufactured in an enzyme free, hormone free and animal free environment
- Contains no known major food allergens (as defined by FDA and WHO)
- The final product and its raw materials are not derived from nor come into contact with animal parts, animal products, and/or animal byproducts or derivatives.
- Is not subject to genetic modification
- Synonyms: Guanidine Isothiocyanate

### Storage and Shipping Conditions

Refer to SDS.

### Standard Shelf-Life Policy

Unless otherwise noted on the Shelf-Life Statement and CoA, this product has a 2-year retest date supported by a 3-year ICH Q1 Stability Study (if one is completed).

### Package Sizes

100g, 500g, 1kg, 5kg, 10kg, 25kg, 50kg

[Click here to view SDS, CoAs and other supporting regulatory documents on our website.](#)

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